

Plasma Heating by Double Pulse Laser Irradiation

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We have attempted to generate highly charged ions by using a laser ion source. We found that laser energy induced by sub-nanosecond pulse is not efficiently absorbed by the plasma. This might be caused by a short pulse duration of the laser. To promote the energy absorption, we are investigating sequential laser irradiation scheme. At the first irradiation, low temperature plasma is created then expanded. The second laser energy may be absorbed in the region of expanded plasma by first laser shot. The experimental result using Ekspla SL334 will be reported and discussed.